

**HiTemp ET Series Thermoelectric Cooler**

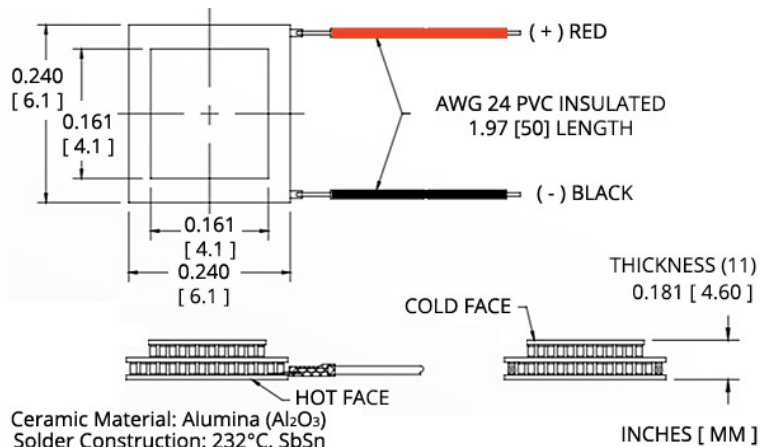
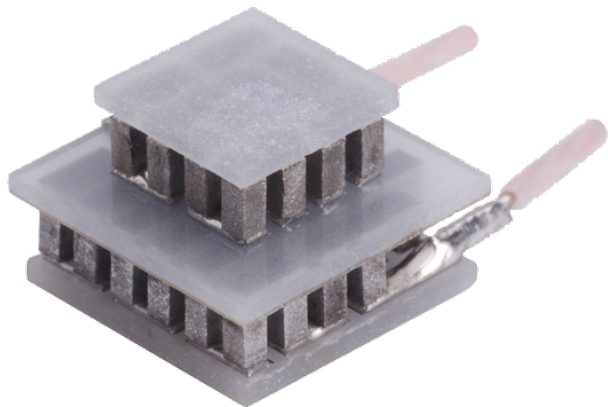
The ETMS2-024-06-06-11-11-11-W2 multistage high temperature style Thermoelectric Cooler uses Laird's enhanced Thermoelectric Module construction preventing performance degrading copper diffusion, which is common in standard grade TEMs operating in high temperature environments exceeding 80 °C. It has a maximum Qc of 0.8 Watts when  $\Delta T = 0$  and a maximum  $\Delta T$  of 90 °C at Qc = 0.

**Features**

- High-temperature operation
- Reliable solid-state
- No sound or vibration
- Environmentally-friendly
- RoHS-compliant

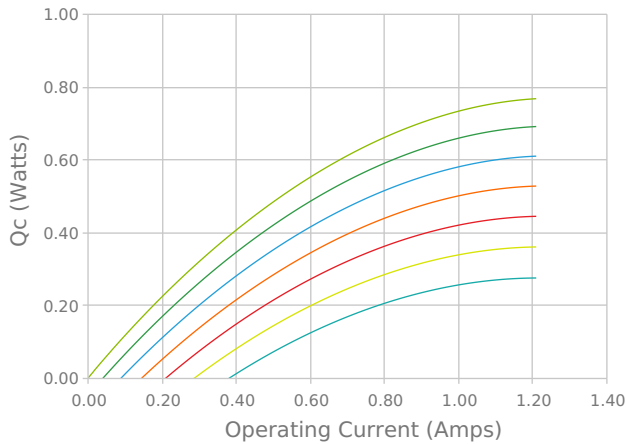
**Applications**

- Peltier Cooling for Refrigerated Centrifuges
- Peltier Cooling for Machine Vision
- Thermoelectric Cooling for CMOS Sensors
- Cooling Solutions for Autonomous Systems
- Peltier Cooling for Digital
- Light Processors

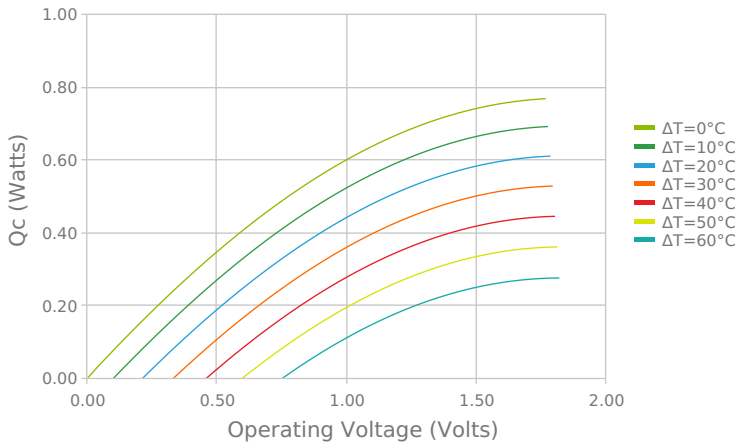


**ELECTRICAL AND THERMAL PERFORMANCE**

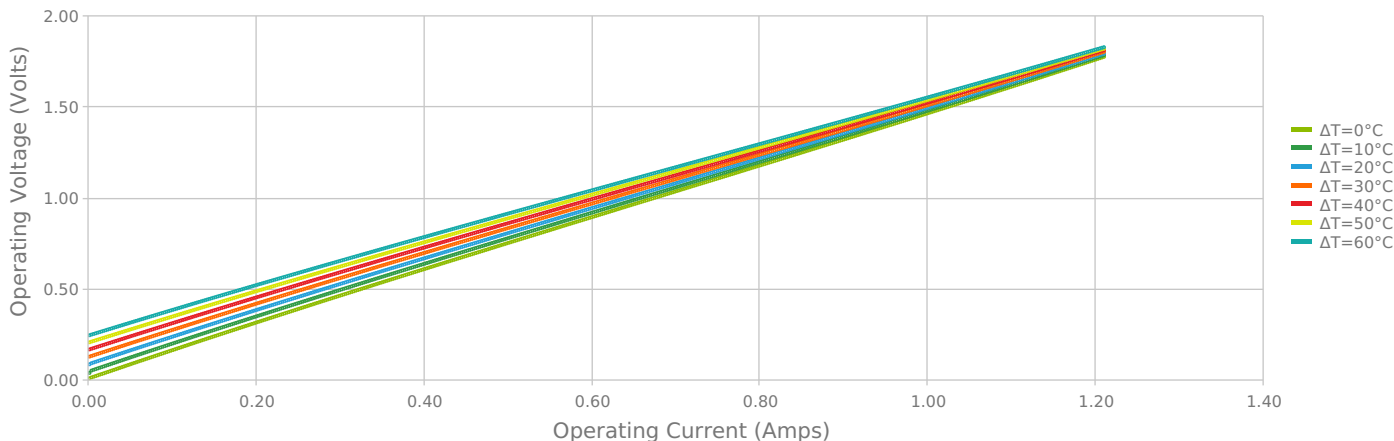
Heat Pumped at Cold Side  
 Thot = 27 °C



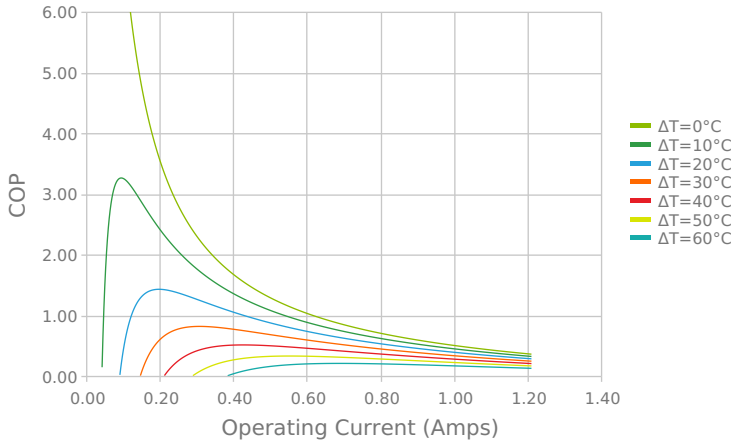
Heat Pumped at Cold Side  
 Thot = 27 °C



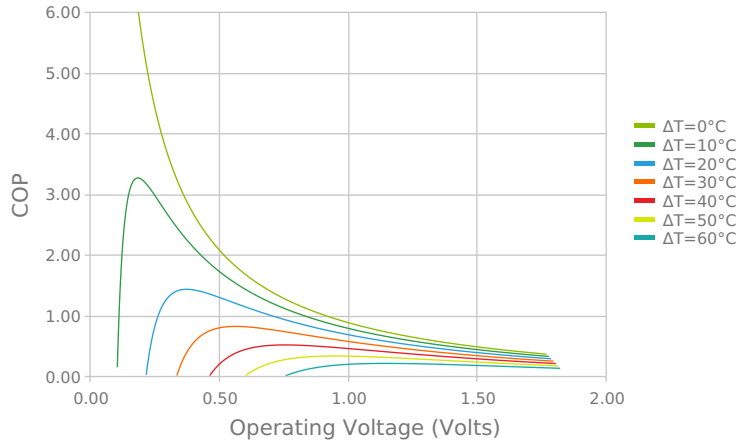
Current vs Voltage (I vs V)  
 Thot = 27 °C



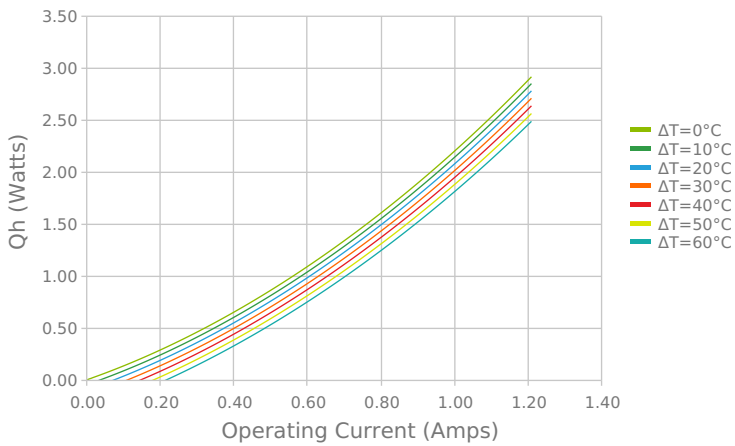
Coefficient of Performance (COP = Qc/Pin)  
Thot = 27 °C



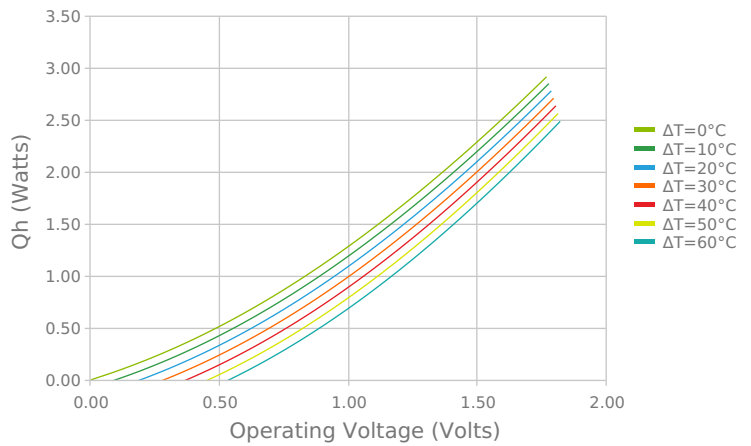
Coefficient of Performance (COP = Qc/Pin)  
Thot = 27 °C



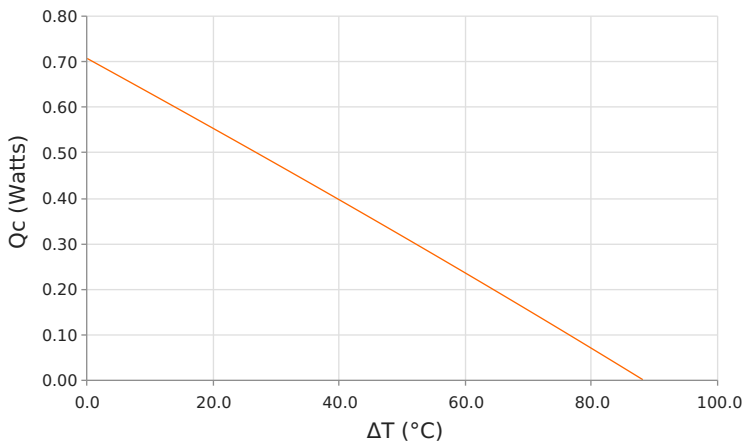
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)  
Thot = 27 °C



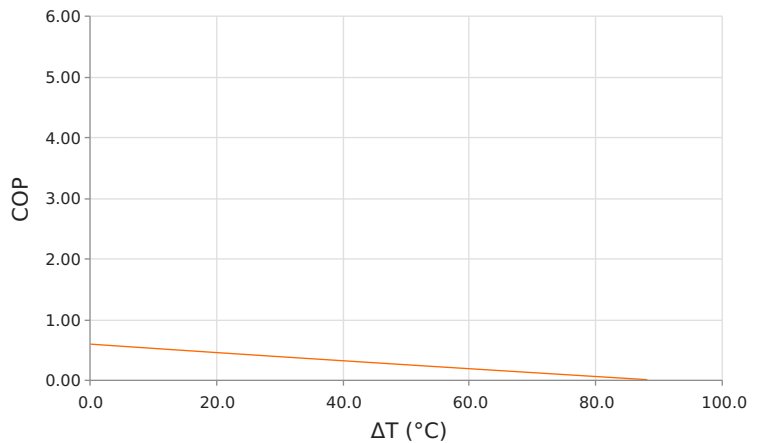
Total Heat Dissipated at Hot Side (Qh=Qc+Pin)  
Thot = 27 °C



Heat Pumped at Cold Side (Qc)  
Thot = 27 °C | Current = 0.9 Amps



Coefficient of Performance (COP = Qc/Pin)  
Thot = 27 °C | Current = 0.9 Amps



## SPECIFICATIONS\*

<b>Hot Side Temperature</b>	<b>27.0 °C</b>
<b>Qcmax (<math>\Delta T = 0</math>)</b>	0.8 Watts
<b><math>\Delta T_{max}</math> (<math>Q_c = 0</math>)</b>	90.0 °C
<b>I<sub>max</sub> (I @ <math>\Delta T_{max}</math>)</b>	1.2 Amps
<b>V<sub>max</sub> (V @ <math>\Delta T_{max}</math>)</b>	1.8 Volts
<b>Module Resistance</b>	1.50 Ohms
<b>Max Operating Temperature</b>	150 °C
<b>Weight</b>	1.0 gram(s)

\* Specifications reflect thermoelectric coefficients updated March 2020

## FINISHING OPTIONS

Suffix	Thickness	Flatness / Parallelism	Hot Face	Cold Face	Lead Length
11	4.100 ± 0.203 mm 0.161 ± 0.008 in	0.025 mm / 0.203 mm 0.001 in / 0.008 in	Lapped	Lapped	199.9 mm 7.87 in

## SEALING OPTIONS

Suffix	Sealant	Color	Temp Range	Description

## NOTES

1. Max operating temperature: 80°C
2. Do not exceed I<sub>max</sub> or V<sub>max</sub> when operating module
3. Reference assembly guidelines for recommended installation
4. Solder tinning also available on metallized ceramics

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